## **ABSTRACT OF THE INVENTION**

Low molecular weight molecules are selectively released from a layered polymer film having a net excess charge by introducing at least one other type of molecule that binds reversibly to the film and thereby reduces the net excess charge. Oligomeric and polymeric molecules, whether synthetic or natural, are selectively and reversibly released from the layered polymer film in response to variation in ionic strength in the environment of the film. Such molecules are also selectively and reversibly released from the layered polymer film in response to changes in the pH in the environment of the film.

5